USGS science for a changing world

Earthquake Shaking — Green Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

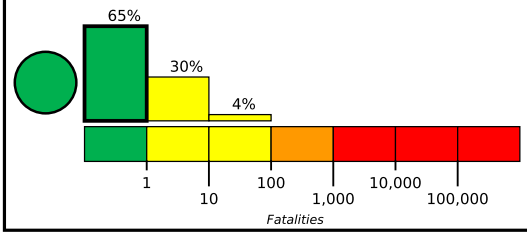
# M 5.5, 81 km SSE of Panguna, Papua New Guinea

Origin Time: 2022-05-01 12:50:30 UTC (Sun 23:50:30 local)
Location: 7.0256° S 155.6883° E Depth: 35.0 km

**PAGER Version 4**

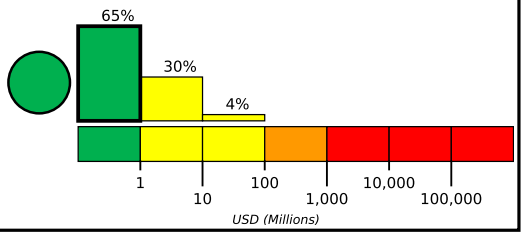
Created: 1 week, 6 days after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

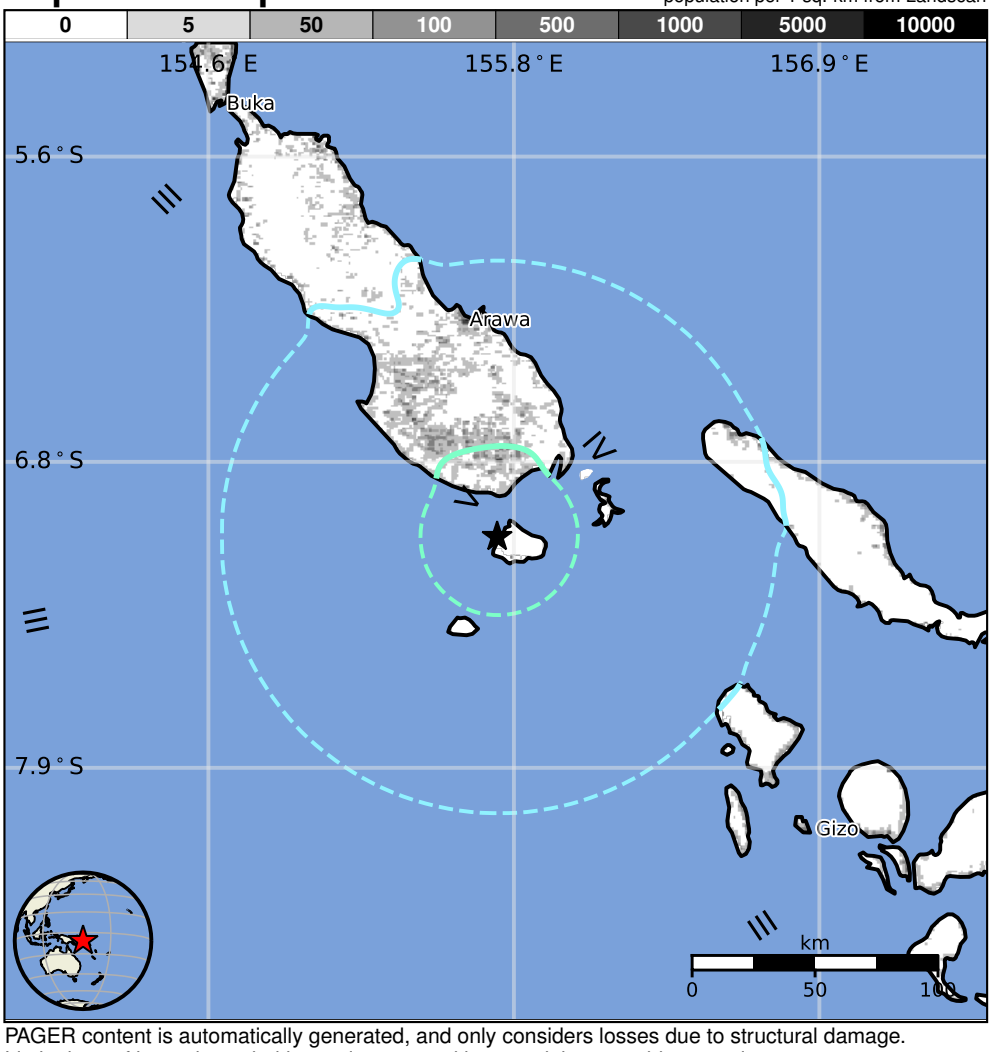



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 179k* | 130k | 25k | 0 | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are informal (metal, timber, GI etc.) and unreinforced brick masonry construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 2007-04-01 | 217 | 8.1 | VIII(22k) | 0 |
| 1975-07-20 | 80 | 7.9 | VIII(48k) | – |
| 1996-04-29 | 84 | 7.2 | VII(57k) | 1 |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| **III** | **Buka** | **<1k** |
| IV | Panguna | 3k |
| IV | Kieta | 4k |
| **III** | **Gizo** | **6k** |
| **IV** | **Arawa** | **40k** |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us7000h67f#pager**

**Event ID: us7000h67f**